

U.S. 40 IS ASSUMED TO RUN
IN AN EAST-WEST DIRECTION

EXISTING SIGNS TO
BE RELOCATED (SHOWN
AT FINAL LOCATION)

EXISTING SIGNS
TO BE REMOVED

- SPECIAL NOTES:**
1. THE CONTRACTOR SHALL NOT BLOCK VIEW OF EXISTING SIGNAL INDICATIONS DURING INSTALLATION OF NEW ARM. IF NEW MAST ARM CANNOT BE INSTALLED DUE TO CONFLICT WITH EXISTING SIGNAL INDICATIONS OR SPAN WIRES, A SIGNAL OUTRAGE SHALL OCCUR DURING NON-PEAK HOURS AS DIRECTED BY THE ENGINEER.
 2. DISCONNECT EXISTING ELECTRICAL CABLE FROM EXISTING SIGNAL HEADS TO BE REMOVED AND RE-CONNECT TO PROPOSED SIGNAL HEADS.
 3. INSTALL HANDHOLE WITH LONG DIMENSION PERPENDICULAR TO TRAVEL WAY FOR INSTALLATION OF NON-INVASIVE PROBES. EXTEND CONDUIT A MINIMUM OF 2 IN. AND MAXIMUM OF 3 IN. INTO HANDHOLE.

EXISTING SIGNS
TO REMAIN

21.30 45 46 48

SIGNAL AHEAD
PREPARE TO STOP
WHEN FLASHING

W3-3a (FY)

49

PROPOSED SIGNS

23 32 37

Ridge RD → D-3(1) (VAR. x16")

N. Ridge RD → D-3(1) (VAR. x16")

← ONE WAY R6-1(L) (36"x12")

40

17.26 20.29 22.31

U-TURN YIELD TO RIGHT TURN R10-16 (30"x36")

R3-1 (30"x30")

R3-2 (30"x30")

38 39 44 47

WEST 40 SHIELD ASSEMBLY (24"x48")

WEST 40 SHIELD ASSEMBLY (24"x48")

EAST 40 SHIELD ASSEMBLY (24"x48")

EAST 40 SHIELD ASSEMBLY (24"x48")

40

19.28.34.41 35.42 24.33.36 43

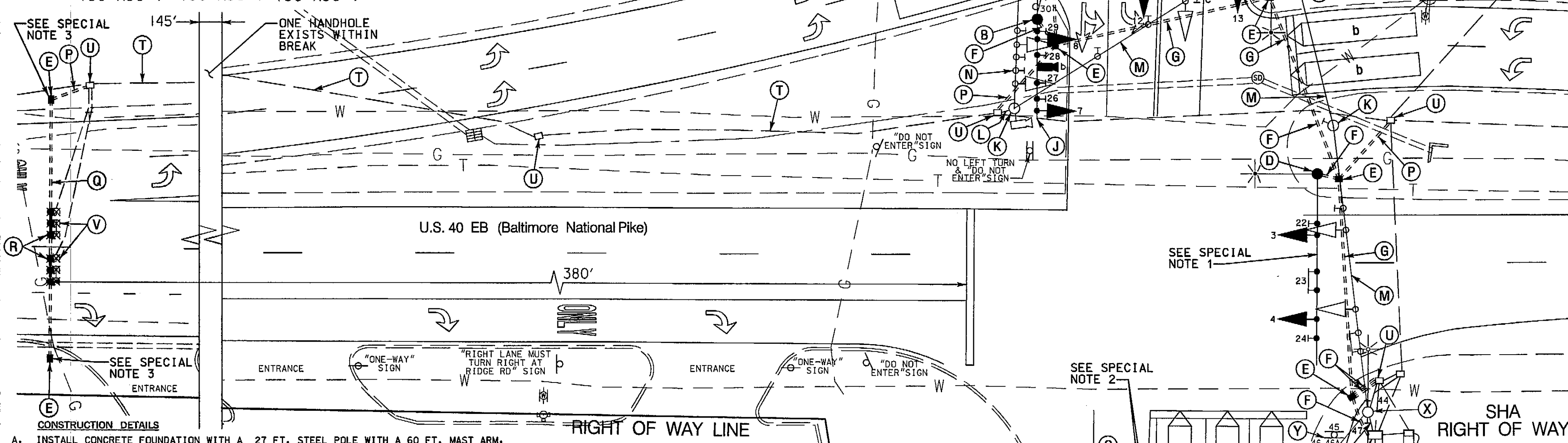
R3-5(L) (30"x36")

R3-6 (30"x36")

R3-5(R) (30"x36")

R10-11b (24"x24")

NO TURN ON RED



- CONSTRUCTION DETAILS**
1. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 60 FT. MAST ARM. TRAFFIC SIGNAL HEADS, SIGNALS, VIDEO DETECTION CAMERA MOUNTED WITHIN 3 FT. OF TOP OF SIGNAL POLE AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
 2. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 38 FT. MAST ARM. TRAFFIC SIGNAL HEADS, SIGNALS, VIDEO DETECTION CAMERA MOUNTED ON MAST ARM AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
 3. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 50 FT. MAST ARM. TRAFFIC SIGNAL HEADS, SIGNALS, VIDEO DETECTION CAMERA MOUNTED ON MAST ARM AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
 4. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 50 FT. MAST ARM. TRAFFIC SIGNAL HEADS, SIGNALS, VIDEO DETECTION CAMERA MOUNTED ON MAST ARM AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
- CONSTRUCTION DETAILS CONTINUED**
1. USE EXISTING CONDUIT.
 2. USE EXISTING HANDHOLE.
 3. ABANDON EXISTING MICROLOOP PROBES. DISCONNECT AND REMOVE MICROLOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
 4. INSTALL R6-1(L) AND R6-1(R) ON ONE 4 IN. X 6 IN. TREATED WOOD SUPPORT (1-15 FT).
 5. USE EXISTING STRAIN POLE. INSTALL ASSOCIATED SHIELD ASSEMBLY (36"x72") "WEST, US 40, LEFT ARROW" AND ASSOCIATED SHIELD ASSEMBLY (24"x48") "EAST, US 40, RIGHT ARROW". EXISTING LUMINAIRE TO REMAIN IN SERVICE.
 6. USE EXISTING WOOD SIGN SUPPORT. REMOVE EXISTING M3-1, M1-4, AND M6-1 SIGNS FROM SUPPORT.
 7. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
 8. INSTALL ASSOCIATED SHIELD ASSEMBLY (24"x48") "WEST, US 40, RIGHT ARROW" AND ASSOCIATED SHIELD ASSEMBLY (36"x72") "WEST, US 40, LEFT ARROW" ON TWO 4 IN. X 6 IN. TREATED WOOD SUPPORT (1-15 FT).
 9. INSTALL 5 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING.

EXISTING SIGNAL
TO BE REMOVED

EXISTING SIGNALS

PROPOSED SIGNALS

NEMA PHASING

FLASHING OPERATION

PROPOSED VIDEO
DETECTION CAMERA

VIDEO ZONE
DETECTION

- NOTES:**
1. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
 2. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
 3. DURING PHASE 3, THERE SHOULD BE A DELAY OF 2 SECONDS PRIOR TO BEGINNING THE CHANGE INTERVAL FOR SIGNAL HEAD NO. 14 TO ENSURE ALL VEHICLES CLEAR THE MEDIAN AREA.
 4. DURING PHASE 4, THERE SHOULD BE A DELAY OF 2 SECONDS PRIOR TO BEGINNING THE CHANGE INTERVAL FOR SIGNAL HEAD NO. 18 TO ENSURE ALL VEHICLES CLEAR THE MEDIAN AREA.

THREE HANDHOLES
EXIST WITHIN
BREAK

- GENERAL NOTES**
1. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
 2. THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER, SHA ENGINEER.
 3. VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
 4. THE CONTRACTOR SHALL CONTACT SHA TO SCHEDULE RETROFITTING OF THE CONTROLLER EQUIPMENT IN ORDER TO OPERATE VIDEO DETECTION EQUIPMENT.
 5. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
 6. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
 7. ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCELL.
 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
 9. REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
 10. THE CONTRACTOR SHALL NOT CUT MAST ARM AS INDICATED ON PLANS UNTIL MAST ARM POLE LOCATION IS FINALIZED.
 11. REFER TO SHEET 2 FOR DIMENSIONS OF SIGNAL EQUIPMENT WITHIN INTERSECTION.

WR&A
**WHITMAN, REQUARDT
& ASSOCIATES, LLP**
801 South Caroline Street, Baltimore, Maryland 21231

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 40 (Baltimore National Pike) at Ridge Road/N. Ridge Road
Ellicott City, Maryland

TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20' ADVERTISED DATE 2/23/2010 CONTRACT NO. XX4245185

DESIGNED BY J. Gordon COUNTY Howard

DRAWN BY J. Gordon LOGMILE 130041018.56

CHECKED BY J. Gordon TMS NO. K091

F.A.P. NO. TOD NO.

TS NO. 951 M DRAWING TSP-1 OF 3 SHEET NO. 1 OF 3

APPROVALS	REVISIONS
TEAM LEADER	RECONSTRUCT TRAFFIC SIGNAL SHA. NO. XX4245185 2/03/2010
ASST. DIR. CHIEF	INSTALL T.E.D. SIGNAL HEADS AND SHA. NO. AX14255185 4/18/2007
DIVISION CHIEF	TMZ [K] UPGRADE TO RED LIGHT CAMERA 10/11/2005
OFFICE DIRECTOR	SWA

GEOMETRIC LEGEND	UTILITY LEGEND
— EXISTING	— STORM DRAIN
— PROPOSED	— GAS MAIN
	— WATER MAIN
	— SEWER MAIN
	— ELECTRIC CABLES
	— AERIAL CABLES
	— TELEPHONE CABLES
	— FIBER-OPTIC

PLOTTED: 02-04-2010
FILE: n:\31869-040\cadd\p80-P001_K091.dgn